INLINE CONTROL VALVE WITH RACK AND PINION MOVEMENT

Abstract of the Disclosure

The present invention provides an inline flow control valve for regulating the movement of materials through a flow line. The valve of the present invention has a design that provides external control of the inline plug instead of control based on flow pressure of the material flowing through the flow line. The valve of the present invention can comprise a one-piece housing design. This one-piece design can facilitate easier assembly and maintenance of the valve. The valve comprises a valve housing, a valve plug, guide member, and an actuation mechanism. This mechanism is a rack and pinion design comprising a shaft, a rotary pinion arm and a rack gear. The rack and pinion design converts circular motion from the shaft into linear motion of the valve plug in the flow line. The shaft, which an operator would use to control the motion of the valve plug, is not contained an integral valve bonnet.